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said detector including a solid anode, and
said detector including a member having a painted end defining a
Langmuir-like probe whereby variations of electron density due to trace
amounts of impurities in a carrier gas of the gas chromatograph can be directly
measured.

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13. (Amended) The improvement of Claim 11, wherein said glow
discharge detector includes:

an outer annular tube composed of glass,
a pair of annular tubes mounted in spaced relation in said outer annular
tube and composed of stainless steel,
said pair of annular tubes being mounted in said outer annular tube,
said Langmuir-like probe being mounted in one of said spaced pair of
annular tubes, with the pointed end thereof being located closely adjacent
another of said pair of annular tubes, and said with the pointed end member
being composed of tungsten, and
said solid anode being mounted in said another of said pair of annular
tubes.

14. (Amended) The improvement of Claim 14, wherein said member with
the pointed end is mounted in said one of said pair of annular tubes by at least
one pinched area in said one of said pair of annular tubes.

15. (Amended) The improvement of Claim 14, wherein said member with
the pointed end said solid anode, and said pair of annular tubes are each
mounted coaxially in said outer annular tube.

17. (Amended) The improvement of Claim 14, wherein, said member with the pointed end and said solid anode are composed of refractory metals with low work functions selected from the group consisting of tungsten, molybdenum, and uranium or metals composed of copper or gold which would not be poisoned by oxygen.

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Please add the following Claims:

18. The glow discharge detector of Claim 1, wherein said detector is controlled through a braised resistor.

19. The glow discharge detector of Claim 1, wherein said member having a tapered end and said solid member are each mounted coaxially in said first annular member.

20. The glow discharge detector of Claim 1, wherein said member having a tapered end and said solid member are mounted coaxially in said pair of annular members.

21. The glow discharge detector of Claim 1, wherein said member having a tapered end and said solid member are mounted in said pair of annular members so as to partially extend therefrom.

22. The glow discharge detector of Claim 1, wherein said pair of annular members are only partially located within said first annular member.

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